

REMARKS/ARGUMENTS

Claims 1, 4-12, and 15-20 are pending in the present application. Claims 2-3, 13-14, and 18-20 have been canceled; claims 1, 4-10, and 12 were amended; and claims 21-24 were added. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claims 3, 5, 9 and 10 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. This rejection is respectfully traversed.

The Examiner states:

Claims 3, 5, 9 and 10 each recite the limitation "an operator", while claim 1, the claim which the instant claims are dependent from already contain "an operator". It is unclear to the Examiner whether the operators in the instant claims are the same entity as the operator claim 1. If they are not, then they should be replaced with "a second operator", "a third operator", a "fourth operator" and a "fifth operator". Appropriate correction is required.

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Claim 3 has been canceled.

Applicant has amended claims 5, 9, and 10 to refer to "the" operator. Therefore the rejection of claims 3, 5, 9 and 10 under 35 U.S.C. § 112, second paragraph has been overcome.

II. 35 U.S.C. § 103, Obviousness

II.A. Claims 1, 3, 4, 6-8, 10-12, 15, 16 and 18-20 over Reed in further view of Bell and Huang

The Examiner has rejected claims 1, 3, 4, 6-8, 10-12, 15, 16 and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over *Reed et al., Method and Apparatus for Storing and Restoring Controller Configuration Information in a Data Communication System*, U.S. Patent No. 5,845,095, dated December 1, 1998 (hereinafter referred to as "*Reed*") in further view of *Bell, Bootstrap Loading from External Memory Including Disabling a Reset from a Keyboard Controller While an Operating System Load Signal is Active*, U.S. Patent No. 5,410,707, dated April 25, 1995 (hereinafter referred to as "*Bell*") and *Huang et al., Integrated PC Card Host Controller for the Detection and Operation of a Plurality of Expansion Cards*, U.S. Patent No. 6,717,274, dated April 6, 2004 (hereinafter referred to as "*Huang*"). This rejection is respectfully traversed.

Applicant's claim 1 describes the RAID storage controller being connected to and controlling a redundant array of independent disks; the RAID storage controller being coupled to a host computer system; executing, by the RAID storage controller, storage system software, which provides a software interface between the RAID storage controller and the host computer system; executing, by the RAID storage controller, boot menu console software that is used by the operator to set parameters for the RAID storage controller's operation; executing, by the host computer system, interface software; and; responsive to a given event that is a command that was entered by the operator through one of the interface software and the boot menu console software. Applicant's claim 12 recites features that are similar to these.

Reed teaches a data communication system 100 that includes a plurality of local DCDs (Figure 2). The DCDs 224 provide a data communication function (DCF) and a controller backup unit (CBU). The CBUs are provided for backing up the controller. Configuration information is stored in the CBUs. When the controller is replaced by a replacement controller, the CBUs are used to restore the stored configuration information. The replacement controller requests controller configuration information pages from each one of the CBUs. If some of the controller configuration information pages obtained from the CBUs are not valid information pages, then factory default controller configuration information pages are combined with the valid controller information pages to form a usable set of controller configuration information.

The Examiner relies on *Reed* to teach a storage controller. *Reed* does not, however, teach a RAID storage controller that executes storage system interface software, which provides a software interface between the RAID storage controller and the host computer system. Therefore, the cited combination of references does not render Applicant's claims obvious.

The Examiner relies on *Reed* to teach a given event that is a command that was entered by an operator through one of interface software and a boot menu console software, referring to *Reed*, column 6, lines 28-30. Specifically, the Examiner asserts that the command that was entered by the user to modify the network address is a "given event".

Reed does not teach a given event that is a command that was entered by the operator through one of the interface software and the boot menu console software. *Reed* teaches a monitor screen of a Motorola DAS 925 data communications system controller in Figure 6 that indicates controller information. The network controller's address can be modified by a system user. *Reed* does not teach, however, an operator entering a command through interface software that is executed by a host computer system that is coupled to the RAID storage controller. Neither *Bell* nor *Huang* cures the deficiencies of *Reed*.

Therefore, the rejection of claims 1, 3, 4, 6-8, 10-12, 15, 16 and 18-20 under 35 U.S.C. § 103(a) has been overcome.

Applicant has added claims 21-24. Claims 21 and 22 describe an Ethernet communications link. Claims 23 and 24 describe the RAID storage controller being housed within a storage controller enclosure in which a second RAID storage controller is also housed; and the second RAID storage controller providing redundancy to the RAID controller. The combination of cited references does not teach or suggest the features of new claims 21-24, and therefore, does not render these claims obvious.

II.B. Claims 5 and 9 over *Reed, Bell and Huang* in further view of *Green*

The Examiner has rejected claims 5 and 9 under 35 U.S.C. § 103(a) as being unpatentable over *Reed, Bell and Huang* in further view of *Green et al., Persistent Snapshot Management System*, U.S. Patent Application Publication No. 2003/0167380, published September 4, 2003 (hereinafter referred to as "*Green*"). This rejection is respectfully traversed.

Applicant's claim 5 depends from claim 4 and recites: wherein the restore event is a command that was entered by the operator through one of the interface software and the boot menu console software.

Applicant's claim 9 depends from claim 8 and recites: wherein the restore event is a command that was entered by the operator through one of the interface software and the boot menu console software.

The Examiner states:

Per claims 5 and 9, the combined teach of Reed, Bell and Huang is silent on whether the restore event is a command that was entered by an operator through one of interface software and a boot menu console, and the restore event in Reed could be done automatically or manually. However, Reed teaches an interface software (see col. 6, lines 28-30), system user modifying controller's network address) and a boot menu console (see Reed, col. 3, lines 10-15, a network management system must have a boot menu console), and in most computer management systems or operating system the user is provided a command to restore data. Assuming Reed's restore is performed automatically without user intervention, then it is clear that one advantage of enabling a system administrator/user to enter a command to initiate the restore operation is that human control is retained and greater flexibility and easy of use are provided when combined with automatic restore. Green teaches a restore command entered by an operator through one of interface software and a boot menu console (see Green, Fig. 24) in order to restore data that was previously backed up. Therefore, it would have been obvious to combine the teachings of Reed, Bell, Huang and Green, in order to provide greater flexibility and easy of use, as well as retaining human control over the restore process.

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The combination of references does not teach or suggest Applicant's claims 5 and 9 because the combination does not teach or suggest the RAID storage controller being coupled to a host computer system; executing, by the RAID storage controller, storage system software, which provides a software interface between the RAID storage controller and the host computer system; executing, by the RAID storage controller, boot menu console software that is used by the operator to set parameters for the RAID storage controller's operation; executing, by the host computer system, interface software; and; responsive to a given event that is a command that was entered by the operator through one of the interface software and the boot menu console software in combination with the features of claims 5 and 9. Therefore, the rejection of claims 5 and 9 under 35 U.S.C. § 103(a) has been overcome

II.C. Claims 17 over *Reed, Bell and Huang* in further view of *Ban*

The Examiner has rejected claim 17 under 35 U.S.C. § 103(a) as being unpatentable over *Reed, Bell and Huang* in further view of *Ban*, Flash File System, U.S. Patent No. 5,404,485, dated April 4, 1995 (hereinafter referred to as "*Ban*"). This rejection is respectfully traversed.

Claim 17 depends from claim 16 and recites wherein the flash memory module has a flash file system format for storing data.

The Examiner states:

Per claim 17, the combined teaching of Reed, Bell and Huang does not specifically teach that the flash memory module has a flash file system format for storing data. However, Ban teaches a flash memory module that uses a flash file system format (Col. 1, Ln. 5-10) for providing compatible data management with existing operating systems (Col. 1, Ln. 29-49). Therefore, it would have been obvious to one ordinarily skilled in the art at the time of the Applicant's invention to combine Ban's teaching with the combined teaching of Reed, Bell and Huang in order to provide compatible data management on the flash memory by implementing a flash file system.

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The combination of references does not teach or suggest Applicant's claim 17 because the combination does not teach or suggest the RAID storage controller being coupled to a host computer system; executing, by the RAID storage controller, storage system software, which provides a software interface between the RAID storage controller and the host computer system; executing, by the RAID storage controller, boot menu console software that is used by the operator to set parameters for the RAID storage controller's operation; executing, by the host computer system, interface software; and; responsive to a given event that is a command that was entered by the operator through one of the interface software and the boot menu console software in combination with the features of claim 17. Therefore, the rejection of claim 17 under 35 U.S.C. § 103(a) has been overcome

IV. Conclusion

It is respectfully urged that the subject application is patentable over the cited prior art and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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